

**Comment Response Document  
Regarding the Total Maximum Daily Load (TMDL) of Sediment for the Rock Creek  
Watershed, Montgomery County, Maryland**

The Maryland Department of the Environment (MDE) has conducted a public review of the proposed TMDL of sediment for the Rock Creek Watershed. The public comment period was open from August 19, 2010 through September 17, 2010. MDE received one set of written comments. An additional set of comments was received following the close of the public review period from the Montgomery County Department of Environmental Protection. These comments are not included in this comment response document, since they were submitted following the close of the official public review period for the TMDL. However, the comments submitted were very similar to the comments the Montgomery County Department of Environmental Protection submitted during the official public review period for the Cabin John Creek and Seneca Creek Sediment TMDLs.

The sole commentor, the commentor's affiliation, the date comments were submitted, and the numbered references to the comments submitted are identified below. In the pages that follow, comments are summarized and listed with MDE's response.

**List of Commentors**

Author	Affiliation	Date	Comment Number
Mark Charles	City of Rockville Department of Environmental Management	September 17, 2010	1 – 4
Bob Hoyt	Montgomery County Department of Environmental Protection	September 22, 2010	N/A <sup>1</sup>

**Note:**<sup>1</sup> The comments submitted by the Montgomery County Department of Environmental Protection are not included and/or responded to in this comment response document, since they were submitted following the close of the official public review period for the TMDL.

**Comments and Responses**

1. The commentor references the point source technical memorandum, *Significant Sediment Point Sources in the Rock Creek Watershed*, and states that according to the memorandum, Phase II municipal separate storm sewer systems (MS4s) are expected to reduce their sediment loadings within the watershed by 38.7%. The commentor then proceeds to say that the TMDL does not, however, clearly state 1) what solutions Phase II MS4s will be required to implement to achieve these reductions, and 2) what type of permit MDE will employ to hold Phase II MS4s accountable for meeting these reductions. By leaving this information out of the TMDL, the commentor states it is difficult to understand how the TMDL targets will be achieved.

The commentor continues and states the TMDL implies that the stormwater facility retrofit requirements required via Montgomery County's Phase I MS4 permit will be extended to all

## FINAL

urban stormwater sources. The commentor then claims that one could assume this statement would apply to Phase II MS4 jurisdictions, but it is not overly clear. If this assumption is correct, then the second point referenced in the paragraph above is very important.

The commentor concludes by saying that MDE does not discuss how it will require Phase II MS4s to retrofit 20% of their existing impervious surface area where there is failing, minimal, or no stormwater management and then asks whether this will be accomplished through a new general permit applicable to all Phase II MS4s. If so, such a requirement might not be applicable to all Phase II MS4s throughout the state. The commentor then asks if, alternatively, MDE intends to issue individual permits to implement the TMDL and/or other TMDLs for Montgomery County waterbodies? Finally, the commentor states that the TMDL should include a discussion of the above considerations with a clear statement regarding how MDE plans to implement these requirements for incorporated jurisdictions and privately owned facilities regulated for the discharge of urban stormwater to the watershed stream system, but not subject to Montgomery County's Phase I MS4 stormwater management program.

**Response:** In response to the commentor's first point, the types and kinds of Best Management Practices (BMPs) the applicable regulated stormwater entities will need to implement to achieve the specified reductions in sediment loads are clearly identified in the *Assurance of Implementation* Section of the TMDL. The *Assurance of Implementation* states:

Sediment from urban areas can be reduced by stormwater retrofits that address both water quality and flow control. Examples of these retrofits include the modification of existing stormwater structural practices, the construction of new stormwater BMPs in prior development where there is none, a reduction in impervious surfaces, street sweeping, inlet cleaning, increases in the urban tree canopy, stream restoration, and any other management practice that effectively addresses water quality and flow control.

In response to the commentor's second point, the type of permit MDE plans to employ to hold Phase II MS4s accountable for meeting the specified reductions in sediment loadings is beyond the scope of the TMDL. The TMDL is a generalized planning tool that assesses the assimilative capacity of an impaired watershed for a given pollutant, estimates current baseline loadings, specifies reductions per source sector, and provides reasonable assurance that the TMDL can and will be implemented. The means by which the local jurisdictions will work towards meeting the specified reductions is at the discretion of the localities themselves. MDE's permits will not decide how these reductions will be achieved. However, future Phase II General MS4 permits will be made consistent with any specified TMDL reductions from Phase II MS4 jurisdictions.

The commentor is correct in assuming that the statement in the TMDL regarding the theoretical extension of Phase I MS4 permitting requirements to all urban stormwater sources would include Phase II MS4s. However, this statement is not an indication that these permitting requirements are actually being extended to all urban stormwater sources. The

## FINAL

applicable permitting program within MDE responsible for the Phase II MS4 general permit is currently working on revising the permit, and it is anticipated that these permit revisions will be made consistent with any specified TMDL reductions from Phase II MS4s. This statement is solely included to put into context the TMDL's corollary analysis, which identifies how much of the urban area developed prior to 1985 (i.e., estimated impervious areas, and associated pervious lands, with failing, minimal, or no stormwater management) would need to be retrofit at an estimated 65% TSS reduction efficiency, in order to achieve the specified reduction in sediment loads, as well as to reflect the actual physical means of implementation. Thus, whether a regulated stormwater entity has specific permit provisions (i.e., the 20% retrofit to existing impervious area where there is failing, minimal, or no stormwater management as required by the Phase I Montgomery County MS4 permit), or it does not, the physical means of actually achieving the specified reductions (i.e., retrofits or other similar practices listed in the opening paragraph of this response) is the same. To clarify this statement, the TMDL has been revised, and the term "theoretical" has been added prior to the statement "extension of these [phase I MS4 permitting] requirements".

MDE currently does not issue individual permits to specific sources within the Rock Creek watershed and/or any other Montgomery County watershed, wherein a TMDL applies, for non Phase I MS4 jurisdictions. This policy is always subject to change in future permitting cycles. Finally, MDE will not include a discussion and clear statement within the TMDL regarding how the Department plans to implement the specified sediment reductions for jurisdictional small Phase II MS4s, state and federal Phase II MS4s, and industrial facilities regulated for the discharge of urban stormwater. This, once again, is beyond the scope of the TMDL, but will be reflected via the permitting process for these entities.

2. The commentor states that the TMDL lists three potential funding sources for local governments to draw upon to implement the retrofits this TMDL requires; however, none of these funding sources, either individually or together, appear capable of providing the significant new costs associated with TMDL implementation. Rather, it would appear that majority of the costs associated with TMDL implementation will most likely be borne by the tax payers of the local jurisdictions.

First, the commentor points out that the Buffer Incentive Program (BIP) is only available to owners of large tracts of undeveloped land and therefore is not applicable to installing stormwater management retrofits in densely developed urban areas. The TMDL clearly states that urban land was identified as the only predominant controllable sediment source in the watershed. Thus, sediment loading reductions were only applied to urban land within the watershed. Consequently, since the BIP will not significantly increase the capacity of Montgomery County or the City of Rockville in building stormwater management facilities to capture and treat sediment from urban sources, it should not be included as a potential funding source in the TMDL.

Second, the commentor states that while the Stormwater Pollution Cost Share Program and State Water Quality Revolving Load fund are valuable programs, they will not be sufficient

## FINAL

to cover the increased costs associated with funding stormwater retrofit projects this TMDL will necessitate. Without significantly expanding these programs, they will not be able to provide the additional funds needed for TMDL implementation. Also, since these are awards-based programs, they are not a reliable funding source that would allow local jurisdictions to plan stormwater retrofits to impervious drainage areas with minimal or no previous treatment over a five-year permit cycle.

The commentor concludes by recommending the following changes to the TMDL. First, the TMDL should ensure that there is increased funding to undertake the costs associated with the increased amount of stormwater retrofits needed to reduce sediment loadings from urban stormwater. Second, the TMDL should indicate that the nonpoint source pollution reduction program will be explicitly tailored to each MS4 permit holder's individual circumstances. Third, the permit holders subject to TMDL requirements should be given preference in the state application process for financial assistance. Finally, the commentor states that this list of recommendations is not exhaustive but meant to illustrate possible efforts that would increase the likelihood of the TMDL being successfully implemented.

**Response:** The commentor is correct in stating that the BIP is not applicable to the implementation of this specific TMDL, where all of the specified reductions come from urban stormwater sources. This program was inadvertently listed within the *Assurance of Implementation* section of the TMDL, as it is only available for agricultural sources. The TMDL has therefore been revised, and this program has been removed from the *Assurance of Implementation*.

The commentor is also correct in assuming that the potential funding sources listed within the *Assurance of Implementation* section of the TMDL may not be able to provide the full funding necessary for the local jurisdictions and other regulated stormwater entities to implement the TMDL. Some of the burden of funding the retrofit projects will have to fall on the local jurisdictions. How much of this burden falls on the local jurisdictions, and how much will be aided via State or federal funds, can not be determined at this time. Since the TMDL is a State analysis, the *Assurance of Implementation* section can only identify the State funding sources available to the local jurisdictions for implementation. The development of other funding sources can be conducted at the discretion of the local jurisdiction itself. One additional funding source the commentor fails to mention, which is identified within the TMDL, is the Federal Nonpoint Source Management Program (§ 319 of the Clean Water Act), a federal fund that is managed by the State. Additionally, MDE is currently operating under the impression that the City of Rockville, as well as Montgomery County, have in place a stormwater utility, or fee, which can also aid in funding the retrofit projects. Lastly, it should be noted that there is no specified time frame for TMDL implementation. Therefore, the necessary funding for full implementation of the TMDL does not need to be acquired within the next five- year permit cycle.

In response to the commentors recommended changes for the TMDL, first, it is beyond the scope of the TMDL to recommend or ensure that there is increased State funding available to

## FINAL

support the costs associated with the stormwater retrofits local jurisdictions will need to implement in order to reduce sediment loadings from urban stormwater sources. In terms of providing reasonable assurance that the TMDL can and will be achieved, the TMDL is solely responsible for identifying the current State funding programs that can aid in funding any of the costs associated with TMDL implementation projects. It is possible that the TMDL could serve as an impetus for increasing the funds available through the currently available programs or lead to the creation of new legislation or funding programs, but it is not the place of the TMDL to specifically recommend these actions.

Second, it is unclear exactly which MDE program the commentor is referring to here when referencing the nonpoint source pollution program. If the commentor is referring to the Federal Nonpoint Source Management Program (Section 319 Program), then only certain funds are available, which are project specific, for a particular permit holder (i.e., MS4). If the commentor is referring to either the State Water Quality Revolving Loan Fund or the Chesapeake Bay Trust Fund, it is not the place of the TMDL to indicate that these programs, or any other programs within MDE, be explicitly tailored to each MS4 permit holder's individual circumstances. Third, whether or not TMDL reductions have been specified for an individual permit holder is one of the factors taken into consideration in the state application process for financial assistance via the majority of MDE funding programs available to local jurisdictions.

3. The commentor states that the only way to assess whether the TMDL is successfully implemented and achieved is to require monitoring in the permitted jurisdictions responsible for implementing the specified TMDL reductions. Furthermore, the TMDL should set clear guidance for local governments regarding data collection requirements necessary to demonstrate compliance with the TMDL and progress toward water quality goals. The TMDL should describe how local jurisdictions will establish initial baseline measurements and then periodically assess whether the applicable Wasteload Allocations (WLAs) are being achieved. Finally, the commentor states that without this guidance, there is no assurance that the TMDL can and will be implemented.

**Response:** The commentor is correct in that the only true means of assessing the success of the Sediment TMDL's implementation efforts is through monitoring data. Phase I MS4 jurisdictions are already required via the National Pollutant Discharge Elimination System (NPDES) permitting process to collect monitoring data and report the results of the data to MDE annually, and specific data collection formats are already specified within these requirements. In addition to the data collected by the local permitted jurisdictions, the State also has several monitoring programs that can and will be used to assess TMDL achievement. These programs include the Maryland Biological Stream Survey (MBSS), the five-year watershed cycling monitoring strategy, and the statewide monitoring strategy, which was recently submitted to and approved by the EPA. Thus, the assessment of TMDL achievement and/or specific WLA achievement is already in place via the various State monitoring data programs and local Phase I MS4 jurisdictions' required monitoring data programs.

## FINAL

4. The absence of a WLA and associated reduction in sediment loads assigned to nonpoint sources within the watershed highlights a larger problem, which is the lack of effective regulation of nonpoint sources. The commentor states that the State should develop a regulatory program for nonpoint sources, if it hopes to achieve the specified TMDL pollutant reductions. Furthermore, the State should adopt the necessary laws and regulations deemed necessary to accomplish this goal. If not, the TMDL is a hollow promise that will not likely be achieved by point sources alone. The commentor then references the *Assurance of Implementation* section of the TMDL report, which states “Maryland has several well established programs to draw upon, including the Water Quality Improvement Act of 1998 (WQIA) and the Federal Nonpoint Source Management Program (§ 319 of the Clean Water Act). The commentor states that these programs, in addition to the BIP, are targeted specifically at reducing nonpoint source pollution. Thus, MDE should set an achievable goal reduction for nonpoint sources and pressure these sources to achieve the specified reductions.

**Response:** First, no reductions were applied to controllable nonpoint sources within the watershed (i.e., crop, pasture, and extractive land uses), since urban and forest land uses are responsible for 88% of the watershed’s total baseline sediment load. Additionally, the source analysis within MDE’s Biological Stressor Identification Analysis (BSID) report for the Rock Creek watershed estimates that 96% of the biological impairments within the basin are associated with urban areas. This is consistent with the sediment budget calculated within the TMDL, which estimates that 84% of the total watershed sediment load is from urban areas. These two independent analyses indicate the same predominant source, and therefore, applying reductions to the controllable nonpoint sources of sediment would produce limited discernable water quality benefit. However, if implementation opportunities for nonpoint sources assigned to the Load Allocation (LA) are identified through more refined monitoring or modeling during the implementation phase of the TMDL, permittees will have the ability to work with these source sectors in order to achieve sediment loading reductions.

The adoption of regulatory programs aimed at curbing nonpoint sources of sediment and any other pollutants is beyond the scope of this TMDL. The TMDL is a requirement of the Clean Water Act (CWA) to scientifically determine the assimilative capacity for any impaired Water Quality Limited Segment (WQLS), and the adoption of new laws and regulatory programs is well beyond this scope. If laws and programs aimed at reducing nonpoint source sediment loadings that would aid TMDL implementation are eventually adopted, the TMDL will take them into account, particularly in the assurance of implementation. It is possible that this TMDL, or TMDLs in general, can serve as an impetus for the creation of new laws or regulations, but these will not be specifically recommended in the documentation. It is also worth noting that some previously unregulated nonpoint sources have already started to come under regulation, such as concentrated animal feeding operations (CAFOs).